

order to build the required air pressure and the necessary air output up again, which results in relatively high operational costs for this known condensate separator.

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Other known condensate separators which are applied behind a heat exchanger separate the condensate from the air flow by means of the gravitational force as is for example the case in US 5.268.011.

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A disadvantage of such known condensate separators is that they do not work efficiently at high flow rates of the air to be treated, since in that case the drops of condensate are sucked along by the air flow. As a result, such a known condensate separator must be made relatively large in order to be able to process a preset air output, at a low flow rate of the air to be treated, which is disadvantageous in that the cost price of such a large condensate separator is relatively high.

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The present invention aims to remedy one or several of the above-mentioned disadvantages.

To this end, the invention concerns a heat exchanger which mainly consists of a housing with a bottom, an upper wall and side walls, whereby on two pairs of opposite side walls, the front wall and the back wall respectively, a supply and a discharge for the gas to be cooled are connected and whereby means are provided

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in the housing for separating condensate from the cooled gas which are mainly formed of a series of corrugated vertical walls upon which are provided crosswise extending ribs forming vertical gutters extending from  
5 the bottom up to the upper wall of the housing, characterised in that holes are provided in the bottom for the discharge of the separated condensate from the gutters via a collector, which collector extends from at least under the holes to under an opening which is  
10 provided in the bottom between the means for separating condensate and the back wall.

An advantage of the heat exchanger according to the invention is that the means for separating condensate are provided in the same housing as the heat exchanger, such that providing a heat exchanger according to the  
5 invention, for example at the compressed air outlet of a compressor, can be done in a relatively fast and simple manner.

Another advantage of a heat exchanger according to the  
10 invention, is that it can be made relatively compact and can be manufactured in a relatively cheap manner.

Moreover, it is possible to realise a high separation efficiency, combined with a low load loss, and the extra  
15 load loss which would normally occur between the connection of the heat exchanger to the condensate separator is by-passed when the heat exchanger and the condensate separator are connected to each other as two separate parts.

20 In order to better explain the characteristics of the present invention, the following preferred embodiment of a heat exchanger according to the invention is described as an example only without being limitative in any way,  
25 with reference to the accompanying drawings, in which:

figure 1 schematically represents a heat exchanger according to the invention as a section;

9. - Heat exchanger according to any of the preceding claims, characterised in that the above-mentioned ribs (19) are folded back at